

## AMENDMENTS

### In the Claims:

Please amend Claims as follows:

Claims 1-39 (Canceled)

40. (Currently amended) An isolated nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecule having a nucleic acid sequence that is at least about 95 percent identical over the full length to a nucleic acid sequence selected from the group consisting of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, ~~and SEQ ID NO:28, SEQ ID NO:30, and SEQ ID NO:33~~, wherein the isolated nucleic acid molecule encodes a protein that elicits an immune response against a ~~naturally-occurring canine or feline B7-2~~ protein having the amino acid sequence of SEQ ID NO:7, SEQ ID NO:17 or SEQ ID NO:28 or wherein said protein, in the presence of an antigen that interacts with a T cell receptor, stimulates T cell proliferation; and

(b) a nucleic acid molecule complementary to the nucleic acid molecule of (a).

41. (Currently amended) An isolated nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecule having a nucleic acid sequence that is at least about 95 percent identical over the full length to SEQ ID NO:33, wherein the isolated nucleic acid molecule encodes a protein that elicits an immune response against a protein having the amino acid sequence of SEQ ID NO:34 or wherein said protein, in the presence of an antigen that interacts with a T cell receptor, stimulates T cell proliferation; that encodes a naturally-occurring soluble canine or feline B7-2 protein; and

(b) a nucleic acid molecule comprising a nucleic acid sequence encoding a protein that is at least about 95% identical to the full-length of SEQ ID NO:34, wherein said protein elicits an immune response against a protein having the amino acid sequence of SEQ ID NO:34 or wherein said protein, in the presence of an antigen that interacts with a T cell receptor, stimulates T cell proliferation;

(c) a nucleic acid molecule comprising the nucleic acid sequence of SEQ ID NO:30; and,

(d) a nucleic acid molecule complementary to the nucleic acid molecule of (a), (b) or (c).

42. (Currently amended) The isolated nucleic acid of Claim 40, wherein said nucleic acid molecule comprises a nucleic acid sequence is selected from the group consisting of:

(a) SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28, ~~SEQ ID NO:30, SEQ ID NO:33~~; and

(b) a nucleic acid ~~molecule~~ sequence complementary to the nucleic acid sequence molecule of (a).

43. (Currently amended) The isolated nucleic acid of Claim 41, wherein said nucleic acid molecule comprises a nucleic acid sequence is selected from the group consisting of:

~~SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28,~~

(a) SEQ ID NO:30, ~~and~~ SEQ ID NO:33; and-

(b) a nucleic acid ~~molecule~~ sequence complementary to the nucleic acid molecule sequence of (a).

44. (Currently amended) An isolated nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecule having a nucleic acid sequence encoding a B7-2 protein that is at least about 95 percent identical ~~to~~ over the full length ~~of~~ to an amino acid sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17; and SEQ ID NO:26, ~~SEQ ID NO:31 and SEQ ID NO:34~~, wherein said B7-2 protein elicits an immune response against a ~~naturally-occurring canine or feline B7-2~~ protein having the amino acid sequence of SEQ ID NO:7, SEQ ID NO:17 or SEQ ID NO:28 or wherein said B7-2 protein, in the presence of an antigen that interacts with a T cell receptor, stimulates T cell proliferation; and

(b) a nucleic acid molecule complimentary to the nucleic acid molecule of (a).

45. (Currently amended) The isolated nucleic acid molecule of Claim 44, wherein said encoded B7-2 protein has an amino acid sequence is selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17; and SEQ ID NO:26, ~~SEQ ID NO:31 and SEQ ID NO:34~~

46. (Currently amended) ~~An~~ The isolated nucleic acid molecule of Claim 41,  
~~comprising an allelic variant of the nucleic acid molecule of Claims 40-45, wherein said variant~~  
~~nucleic acid molecule comprises a nucleic acid sequence encoding-encodes a protein that elicits~~  
~~an immune response against a naturally occurring canine or feline B7-2 protein or stimulates T~~  
~~cell proliferation-~~ having the amino acid sequence of SEQ ID NO:31 or SEQ ID NO:34.

47. (Currently amended) An isolated nucleic acid molecule selected from the group  
consisting of:

(a) an isolated nucleic acid molecule consisting of a fragment of SEQ ID NO:6,  
SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25; or SEQ ID NO:28; ~~SEQ ID~~  
~~NO:30 or SEQ ID NO:33~~, wherein said fragment is at least about 12 nucleotides of SEQ ID  
NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25; or SEQ ID NO:28; ~~SEQ~~  
~~ID NO:30 or SEQ ID NO:33~~; and,

(b) a nucleic acid molecule complementary to the nucleic acid molecule of (a).

48. (Currently amended) An isolated nucleic acid molecule consisting of a fragment  
of a nucleic acid molecule encoding a canine or feline B7-2 protein, wherein said protein has an  
amino acid sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17; and  
SEQ ID NO:26; ~~SEQ ID NO:31 and SEQ ID NO:34~~, and wherein said fragment is at least about  
12 nucleotides.

49. (Reiterated) The isolated nucleic acid molecule of Claims 47 or 48, wherein  
said fragment has at least about 18 nucleotides.

50. (Previously presented) A composition comprising the isolated nucleic acid  
molecule as specified in any one of Claims 40-49 and an excipient.

51. (Currently amended) A method to produce a canine or feline B7-2 protein, said  
method comprising culturing a cell capable of expressing said B7-2 protein, said B7-2 protein  
being encoded by ~~a nucleic acid molecule selected from the group consisting of:~~  
a nucleic acid molecule having a nucleic acid sequence that is at least about 95 percent identical  
over the full length to a nucleic acid sequence selected from the group consisting of SEQ ID

NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25; and SEQ ID NO:28, wherein said protein elicits an immune response against a protein having the amino acid sequence of SEQ ID NO:7, SEQ ID NO:17 or SEQ ID NO:28 or wherein said protein, in the presence of an antigen that interacts with a T cell receptor, stimulates T-cell proliferation, ~~SEQ ID NO:30, and SEQ ID NO:33; and~~ a nucleic acid molecule that encodes a naturally-occurring soluble canine or feline B7-2 protein.

52. (Currently amended) The method of Claim 51, wherein said nucleic acid molecule encodes a B7-2 protein that is at least about 95 percent identical over the full length of an amino acid sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17; and SEQ ID NO:26, ~~SEQ ID NO:31 and SEQ ID NO:34.~~

53. (Currently amended) The method of Claim ~~50~~ 51, wherein said nucleic acid molecule ~~is~~ comprises a nucleic acid sequence selected from the group consisting of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25; and SEQ ID NO:28; ~~SEQ ID NO:30 and SEQ ID NO:33.~~

54. (Currently amended) The method of Claim ~~50~~ 51, wherein said nucleic acid molecule comprises a nucleic acid sequence that encodes a protein having an amino acid sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17; and SEQ ID NO:26, ~~SEQ ID NO:31 and SEQ ID NO:34.~~

55. (Currently amended) ~~The A method of Claim 50, wherein the nucleic acid molecule comprises an allelic variant of the nucleic acid molecule of Claims 40-49, wherein said nucleic acid molecule encodes a protein that elicits an immune response against a naturally-occurring to produce a canine or feline B7-2 protein or stimulates T cell proliferation said method comprising:~~

- (a) culturing a cell comprising the isolated nucleic acid molecule of Claim 41, wherein said cell is capable of expressing said B7-2 protein; and
- (b) recovering said canine or feline B7-2 protein.

56. (Currently amended) A method to produce a canine or feline B7-2 peptide, said method comprising culturing a cell capable of expressing said B7-2 peptide, said B7-2 peptide being encoded by a nucleic acid molecule consisting of a fragment of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, and SEQ ID NO:28, ~~SEQ ID NO:30 or SEQ ID NO:33~~, wherein said fragment is at least about 12 nucleotides of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, and SEQ ID NO:28, ~~SEQ ID NO:30 or SEQ ID NO:33~~.

57. (Canceled)

58. (Previously presented) The method of Claim 56, wherein said fragment is at least about 18 nucleotides.

59. (Previously presented) A recombinant molecule comprising a nucleic acid molecule as set forth in any one of Claims 40-49 operatively linked to a transcription control sequence.

60. (Previously presented) A recombinant virus comprising a nucleic acid molecule as set forth in any one of Claims 40-49.

61. (Previously presented) A recombinant cell comprising a nucleic acid molecule as set forth in any one of Claims 40-49.